



ARCADIS
10559 Citation Drive
Suite 100
Brighton
Michigan 48116
Tel 810.229.8594
Fax 810.229.8837
www.arcadis-us.com

Mr. James Saric
Remedial Project Manager
USEPA Region 5
77 West Jackson Boulevard (SR-6J)
Chicago, IL 60604-3507

SEDIMENTS

Subject:
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Fifth Semi-Annual Progress Report (February 2009 to July 2009)

Date:
August 17, 2009

Dear Jim:

Contact:
Michael J. Erickson, P.E.

Attached is the fifth semi-annual progress report for the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site Supplemental Remedial Investigations/Feasibility Studies (SRI/FS). This progress report is submitted as per Section 7.2 of the Statement of Work (SOW) for the February 2007 Administrative Settlement Agreement and Order on Consent (AOC) for Remedial Investigations/Feasibility Studies (Docket No. V-W-07-C-864). Per Section 7.2 of the SOW, the semi-annual progress reports "shall address all areas of the Site where Respondents perform SRI/FS activities and shall summarize overall progress in completing the work required by the AOC and SOW."

Phone:
810.225.1924

Email:
michael.erickson@
arcadis-us.com

Our ref:
B0064539.0000.00014
#2

If you have any questions, please do not hesitate to contact me.

Sincerely,

ARCADIS

Michael J. Erickson, P.E.
Associate Vice President

MJE/plf
Attachment

Copies:

Michael Berkoff, USEPA
Sam Chummar, USEPA
Michael Ribordy, USEPA
Paul Bucholtz, MDEQ
Jeff Keiser, CH2M HILL
Todd Goeks, NOAA
Kathy Huibregtse, RMT Inc.
Richard Gay, Weyerhaeuser Company
Martin Lebo, Weyerhaeuser Company
J. Michael Davis, Esq., Georgia-Pacific LLC
Garry Griffith, P.E., Georgia-Pacific LLC
Paul Montney, P.E., Georgia-Pacific LLC
L. Chase Fortenberry, P.G., Georgia-Pacific LLC

**SEMI-ANNUAL PROGRESS REPORT FOR THE ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE SRI/FS**

REPORT #5, FEBRUARY 2009 TO JULY 2009

**PREPARED BY ARCADIS
ON BEHALF OF THE KALAMAZOO RIVER STUDY GROUP**

SUBMITTED TO

**JAMES SARIC, REMEDIAL PROJECT MANAGER
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA)**

**Semi-Annual Progress Report for the Allied Paper, Inc./Portage Creek/
Kalamazoo River Superfund Site SRI/FS**

REPORT #5, FEBRUARY 2009 TO JULY 2009

Areas of the Site where SRI/FS Activities Have Been Performed Pursuant to the AOC and SOW

- Operable Unit 5 (OU 5) – Kalamazoo River from Morrow Dam to Lake Michigan and Portage Creek from Alcott Street to the confluence.

Summary of Overall Progress in Completing Work Required by the AOC and SOW – Area 1 and Multi-Area

AOC Requirements

- As discussed in Section 28b of the AOC, the USEPA and Michigan Department of Environmental Quality (MDEQ) were notified in advance of sample collection activities.
- The six monthly progress reports generated during the February 2009 to July 2009 period were submitted on time, as required by Section 27 of the AOC and Section 7.1 of the SOW.
- As discussed in Section 48a of the AOC, the validated data that have been generated to date have been submitted as part of the monthly progress reports.
- On February 21, ARCADIS submitted to USEPA an updated certificate of insurance, as discussed in Paragraph 92 of the AOC. On March 30, ARCADIS forwarded to USEPA a letter regarding the annual insurance policy submittal requirements outlined in Paragraph 92.

SOW Requirements

Task 1. Project Scoping and SRI/FS Planning Documents

Submittals approved by USEPA and finalized:

- On February 25, ARCADIS submitted to USEPA a groundwater monitoring well installation plan for the Plainwell TCRA Area. On March 2, ARCADIS, Georgia-Pacific LLC (Georgia-Pacific), USEPA, and MDEQ participated in a conference call to discuss the Plainwell TCRA groundwater monitoring well construction program. A summary of the agreements reached during that call was distributed to the participants on March 4. These wells are discussed in Section 3.4.6 of the Area 1 SRI/FS Work Plan.
- On May 6, USEPA approved the revised Phase 2 work plan for the Crown Vantage area and the revised Phase 2 work plan for the focused step-out sampling in Area 1. The Crown Vantage sampling is described in Section 3.4.3 of the Area 1 SRI/FS Work Plan. The focused step-out sampling is described in Section 3.4.4 of the Area 1 SRI/FS Work Plan.

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- On May 18, USEPA forwarded to ARCADIS approval of the Conceptual Site Model (CSM) Report. On May 21, ARCADIS submitted the final CSM Report to USEPA. The CSM is discussed in Section 1.2.1.4 of the SOW.
- On June 17, ARCADIS submitted to USEPA the final *Source Investigation at the Former Kalamazoo and Hawthorne Mill Properties* report (Source Investigation Report), which is discussed in Section 2.2.1.1 of the SOW. On July 6, USEPA forwarded to Georgia-Pacific approval of the Source Investigation Report stating that USEPA does not consider the Kalamazoo and Former Hawthorne Mill Properties part of the Site. The letter is dated June 30.
- On July 9, USEPA forwarded to ARCADIS a response to the letter requesting USEPA's data usability determination for existing data for purposes of the SRI/FS, which was submitted to USEPA on August 27, 2007. These data are described in Section 1.1.2 of the SOW.

Activities toward completion of other requirements:

- On March 12, ARCADIS responded to USEPA's December 22, 2008 memorandum regarding scoping implementation of key recommendations in the peer review panel. USEPA responded on March 16. The ecological risk assessment peer review process is discussed in Section 1.2.1.4 of the SOW.
- On April 21, ARCADIS, USEPA, MDEQ, and the Trustees met in Detroit to discuss the general approach to be used in the Area 1 Ecological Risk Assessment Work Plan.
- On April 27, ARCADIS, Georgia-Pacific, USEPA, and MDEQ met in Detroit to discuss the Area 1 RI data. On April 28, ARCADIS forwarded to USEPA a list of action items from the meeting.
- On June 11, ARCADIS submitted to USEPA a presentation regarding the off-channel areas data review. This was an action item from the April 27 technical meeting in Detroit.
- On July 13, ARCADIS forwarded to USEPA a draft land use assessment overview. This assessment is discussed in Section 2.4 of the SOW.
- On July 14, ARCADIS forwarded to USEPA the results of the 2008 yearling smallmouth bass sampling at the Otsego City Impoundment. This sampling is discussed in Section 3.4.5 of the Area 1 SRI/FS Work Plan.
- On July 30, Georgia-Pacific, ARCADIS, USEPA, and other stakeholders met to discuss the Area 1 Risk Assessment Work Plan.

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- On July 30, Georgia-Pacific, ARCADIS, and MDEQ met to discuss the long-term monitoring program for the Site. The long-term monitoring program is discussed in Section 1.1.1.1 of the SOW.

Submittals awaiting completion:

- On June 23, ARCADIS submitted electronically to USEPA the revised draft *Multi-Area FS Technical Memorandum – Preliminary Permitting/Equivalency Requirements*, which is described in Section 1.2.2.3 of the SOW. A hard copy was forwarded on June 30.
- On June 30, ARCADIS submitted the draft *Area 1 Work Plan Supplement: Human Health and Ecological Risk Assessment Work Plan* to USEPA. The Area-specific Work Plans are discussed in Section 1.3 of the SOW.
- On July 14, ARCADIS submitted the draft *Hot Spot Assessment Plan* to USEPA. This assessment is Phase 3 of the sampling effort for the reaches in Area 1 from the Former Georgia-Pacific Mill Lagoons to Crown Vantage Landfill (Section 3.4.1.1 of the Area 1 SRI/FS Work Plan) and Portage Creek (Section 3.4.1.3 of the Area 1 SRI/FS Work Plan).
- Georgia-Pacific awaits USEPA's comments on the remaining Multi-Area FS document described in Section 1.2.2 of the SOW (Preliminary Remedial Technology Screening [Section 1.2.2.1]) and the *Candidate Technologies and Testing Needs Technical Memorandum* (described in Section 4.1 of the SOW), which were submitted to USEPA on February 22, 2008.

Task 2. Site Characterization

- Between March 2 and 18, ARCADIS installed 15 groundwater monitoring wells in the Plainwell TCRA Area. These locations were surveyed on March 24 and developed the week of March 30. These wells are discussed in Section 3.4.6 of the Area 1 SRI/FS Work Plan. During the week of March 21, ARCADIS installed 5 staff gauges in the Plainwell TCRA Area. The gauges were surveyed on April 6. On July 16, ARCADIS re-installed staff gage #2 (SG-2) in the Plainwell TCRA Area.
- On March 6 and April 1, ARCADIS collected additional soil samples in Former Georgia-Pacific Kalamazoo Mill Lagoons 4 and 5 for PCB analysis.
- During the week of March 9, ARCADIS performed the post-removal sediment sampling in the Plainwell TCRA Area to document conditions. This activity is described in Section 3.4.5 of the Area 1 SRI/FS Work Plan. On March 26, ARCADIS collected additional sediment cores in the Plainwell TCRA Area to provide supplemental visual inspection.

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- In April, ARCADIS monitored groundwater and surface water elevations at least twice a week for 2 weeks to confirm groundwater flow towards the river in the Plainwell TCRA Area. Once flow direction was confirmed, ARCADIS sampled the 15 groundwater monitoring wells and collected two surface water samples from the River (during the week of April 13).
- During the week of May 11, Germano & Associates performed sediment profile imaging in Lake Allegan and ARCADIS collected sediment cores for geochronologic analyses. On July 24, ARCADIS released selected sediment samples for PCB analyses from the Lake Allegan cores collected in May 2009. TestAmerica will analyze for PCBs and percent solids. The remaining PCB samples are still being retained in frozen storage at TestAmerica pending results of the radionuclide analysis.
- During the weeks of June 15 and 22, ARCADIS monitored groundwater and surface water elevations twice a week to confirm groundwater flow towards the river in the Plainwell TCRA Area. Once flow direction was confirmed, ARCADIS sampled the 15 groundwater monitoring wells and collected two surface water samples from the River (during the week of June 29).
- On July 7 through 9, ARCADIS collected soil and sediment samples in the Crown Vantage landfill area, which is described in Section 3.4.3 of the Area 1 SRI/FS Work Plan. ARCADIS processed and forwarded the samples to TestAmerica Laboratories, Inc. (TestAmerica) for PCB, total organic carbon (TOC), and grain size analysis.
- On July 9, ARCADIS collected samples for the focused step-out sampling activity, which is described in Section 3.4.4 of the Area 1 SRI/FS Work Plan. ARCADIS processed and forwarded the samples to TestAmerica for PCB, TOC, and grain size analysis.
- On July 14 through 16, ARCADIS collected bathymetric monitoring data in the former Plainwell Impoundment. This work is discussed in Section 3.4.5 of the Area 1 SRI/FS Work Plan.
- In accordance with Section 2.1 of the SOW, a paper and electronic copy of all laboratory data has been submitted as part of the monthly progress report.

Task 3. Remedial Investigation Report (including ecological and human health risk assessment)

- No meetings, submittals, or notifications.

Task 4. Treatability Studies (if needed)

- No meetings, submittals, or notifications.

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Task 5. Development of Screening Alternatives (Technical Memorandum)

- No meetings, submittals, or notifications.

Task 6. Detailed Analysis of Alternatives (FS Report)

- No meetings, submittals, or notifications.

Task 7. Progress Reports

- The six monthly progress reports generated during the February 2009 to July 2009 period were submitted on time, as required by Section 7.1 of the SOW.
- The fourth semi-annual report for Area 1 was submitted to USEPA on February 16, as required by Section 7.2 of the SOW.
- The Annual Area Work Report for Areas 2 through 7 was submitted to USEPA on February 16, as discussed in Section 1.1.1 of the SOW.